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PATENT COOPERATION TREATY

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# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 8430 WO F RO/FRI	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/EP2003/011453	International filing date (day/month/year) 16 October 2003 (16.10.2003)	Priority date (day/month/year) 22 October 2002 (22.10.2002)
International Patent Classification (IPC) or national classification and IPC F16H 63/44		
Applicant ZF FRIEDRICHSHAFEN AG		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising:
  - a. ☒ (sent to the applicant and to the International Bureau) a total of 3 sheets, as follows:
    - ☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
    - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
  - b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) \_\_\_\_\_, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).
4. This report contains indications relating to the following items:
  - ☒ Box No. I Basis of the report
  - ☐ Box No. II Priority
  - ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
  - ☐ Box No. IV Lack of unity of invention
  - ☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
  - ☐ Box No. VI Certain documents cited
  - ☐ Box No. VII Certain defects in the international application
  - ☐ Box No. VIII Certain observations on the international application

Date of submission of the demand 14 April 2004 (14.04.2004)	Date of completion of this report 17 February 2005 (17.02.2005)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2003/011453

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is language of a translation furnished for the purpose of:
- ☐ international search (under Rules 12.3 and 23.1(b))
  - ☐ publication of the international application (under Rule 12.4)
  - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☐ The international application as originally filed/furnished
- ☒ the description:
- pages \_\_\_\_\_ 1-18 \_\_\_\_\_, as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the claims:
- pages \_\_\_\_\_, as originally filed/furnished
- pages\* \_\_\_\_\_, as amended (together with any statement) under Article 19
- pages\* \_\_\_\_\_ 1-11 \_\_\_\_\_ received by this Authority on \_\_\_\_\_ 21 January 2005 (21.01.2005)
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the drawings:
- pages \_\_\_\_\_ 1/3-3/3 \_\_\_\_\_, as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP 03/11453

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. Statement

Novelty (N)	Claims	1-11	YES
	Claims		NO
Inventive step (IS)	Claims	1-11	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-11	YES
	Claims		NO

### 2. Citations and explanations

Reference is made to the following documents:

D1: US-A-1 887 943  
D2: DE 44 22 900 A  
D3: EP-A-0 541 035  
D4: EP-A-0 595 496  
D5: US-A-2 582 895.

#### 1. Novelty of independent claim 1

Document D1, which is considered the closest prior art, discloses and describes (the references between parentheses relate to D1):

a gear-shift device for a multi-speed vehicle transmission (page 1, lines 1-8) having a main transmission part and at least one group transmission part (page 2, lines 55-56), which has gear-shift means (29, 30) for actuating gear-shift elements in the main transmission part and gear-shift elements for actuating gear-shift elements in the group transmission part (page 1, lines 57-64), and wherein the gear-shift means for actuating the gear-shift elements in the main transmission part

(page 2, lines 41-44) also actuate the gear-shift elements in the group transmission part (page 2, line 110, to page 3, line 9).

The subject matter of claim 1 therefore differs from the known gear-shift device in that the gear-shift means have a space in which an element of the gear-shift means that actuates the gear-shift elements can be moved in the direction of a gear-shift movement whilst the desired gear-shift element is being selected.

The subject matter of claim 1 is therefore novel (PCT Article 33(2)).

## 2. Inventive step of independent claim 1

The problem to be solved by the present invention is therefore understood to be that of developing a multi-speed transmission according to the preamble of the independent claim in such a way that a gear-shift element of the transmission can be used as an integrated initial gear-shift element, while at the same time reducing structural complexity and offering advantageous gear steps and more overall gear ratios.

The solution to this problem proposed in claim 1 of the present application involves an inventive step (PCT Article 33(3)) because the combination of features contained in claim 1 does not appear to be known from or suggested by the available prior art.

## 3. Industrial applicability

The subject matter of claim 1 also appears to meet the requirements of PCT Article 33(4), since it can be made

and used at least in the field of motor vehicle technology.

**4. Dependent claims**

Dependent claims 2-11, which concern further developments of the invention according to claim 1, likewise appear to meet the requirements of PCT Article 33(2) to (4).

**5. Observation**

Contrary to PCT Rule 5.1(a)(ii), the description does not cite document D1 or indicate the relevant prior art disclosed therein.